

U.S.S.N. 10/604,661

2

81044283 (FGT 1832 PA)

In the claims:

1. (Currently Amended) A vehicle shutdown system for a non-hybrid vehicle having an internal combustion engine comprising:

an ignition-enabling device having at least an ON state and an OFF state, said ignition-enabling device enabling ignition of the internal combustion engine; and

[[an]]a non-hybrid internal combustion engine controller having a plurality of functions and being coupled to said ignition-enabling device, said engine controller at least temporarily maintaining operation of at least a portion of said controller functions when said ignition-enabling device is switched to said OFF state, said controller functions comprising non-idle air valve related functions.

2. (Original) A system as in claim 1 wherein said plurality of functions are selected from at least one of an electronic throttle control function, a camshaft position function, a crankshaft position function, a remote start function, a drive-by-wire function, and an ignition system function.

3. (Currently Amended) A system as in claim 1 further comprising a non-idle air valve throttle-controlled device, said engine controller electronically controlling said throttle-controlled device and at least temporarily preventing shutdown of electronic throttle control when said ignition-enabling device is switched to an OFF state.

4. (Original) A system as in claim 3 further comprising a switch coupled to said ignition-enabling device and a fuel supply system, said engine controller disabling said fuel supply system upon said ignition-enabling device being switched to said OFF state.

5. (Original) A system as in claim 3 further comprising a switch coupled to said engine controller, said engine controller enabling said switch when said ignition-enabling device is in said ON state and at least temporarily preventing disablement of said switch when said ignition-enabling device is in said OFF state.

U.S.S.N. 10/604,661

3

81044283 (FGT 1832 PA)

6. (Canceled)

7. (Original) A system as in claim 3 further comprising a throttle actuator position sensor generating a throttle position signal, said engine controller adjusting a position of said throttle-controlled device in response to said throttle position signal.

8. (Original) A system as in claim 3 wherein said ignition-enabling device is an ignition start key assembly.

9. (Canceled)

10. (Currently Amended) A system as in claim 3 wherein said engine controller adjusts a position of said throttle-controlled device to be more air flow restrictive, without closing off the flow of air, than that of said throttle-controlled device in a default position when said ignition-enabling device is switched to said OFF state.

11. (Currently Amended) A system as in claim 3 wherein said engine controller adjusts a position of said throttle-controlled device to be equal to or between 1-2°~~approximately 1.5°~~ open relative to a closed position when said ignition-enabling device is switched to said OFF state.

12. (Original) A system as in claim 1 further comprising a safety monitor receiving an operation status signal from said engine controller when operation of said at least a portion of said controller functions is maintained and said ignition-enabling device is switched to said OFF state.

13. (Original) A system as in claim 1 wherein said engine controller is at least a portion of a drive-by-wire system controller.

14. (Currently Amended) A vehicle shutdown system comprising:

an ignition-enabling device having at least an ON state and an OFF state;

a non-idle air valve throttle-controlled device; and

a controller coupled to said ignition-enabling device and electronically controlling said throttle-controlled device, said controller at least temporarily

U.S.S.N. 10/604,661

4

81044283 (FGT 1832 PA)

preventing shutdown of electronic throttle control when said ignition-enabling device is switched to said OFF state;

wherein said controller adjusts said throttle-controlled device to be at a position that is more air flow restrictive, without closing off the flow of air, than that of said throttle-controlled device in a default position when said ignition-enabling device is switched to said OFF state.

15. (Currently Amended) A method of powering down a vehicle having a controller with a plurality of functions comprising at least temporarily maintaining operation of at least a portion of said controller functions when said ignition-enabling device is switched to said OFF state, wherein said plurality of functions are selected from at least one of a camshaft position function, a crankshaft position function, and a remote start function.

16. (Original) A method as in claim 15 further comprising:
electronically controlling a throttle-controlled device; and
at least temporarily preventing shutdown of electronic throttle control when said ignition-enabling device is switched to said OFF state.

17. (Original) A method as in claim 16 wherein at least temporarily preventing shutdown of electronic throttle control comprises:

adjusting a position of said throttle-controlled device to further restrict the flow of air over that of a default position when said ignition-enabling device is switched to said OFF state; and

enabling said throttle-controlled device to be in said default position when engine speed is approximately equal to zero.

18. (Original) A method as in claim 17 wherein enabling said throttle-controlled device to be in said default position comprises disabling said controller.

19. (Original) A method as in claim 17 wherein adjusting a position of said throttle-controlled device comprises adjusting said throttle-controlled device to be at approximately 1.5° from a closed position.

20. (Original) A method as in claim 16 further comprising enabling a power switch when said ignition-enabling device is in said ON

U.S.S.N. 10/604,661

5

81044283 (FGT 1832 PA)

state and temporarily preventing disablement of said power switch when said ignition-enabling device is in said OFF state.

21. (New) A system as in claim 1 further comprising an electronic throttle device, said controller signaling said electronic throttle device to reduce noise and vibration during engine shutdown due to air reception into an intake manifold of the engine.

22. (New) A system as in claim 3 wherein said engine controller adjusts a position of said throttle-controlled device to be more air flow restrictive, without closing off the flow of air, than that of said throttle-controlled device in a normal idle operating position when said ignition-enabling device is switched to said OFF state.